

Appl. No. 10/631,140
Amdt. dated December 15, 2005
Reply to Office Action of August 2, 2005

Amendments to the Drawings:

The attached sheet of drawings includes changes to Fig. 5 and replaces the original sheet including Fig. 5. In Figure 5, previously omitted elements 564a, 564b, 564c, and 564d have been added.

Attachment: Replacement Sheet

REMARKS/ARGUMENTS

This paper is submitted in response to the Office Action mailed August 2, 2005. In the Office Action, the Examiner objected to the specification and rejected claims 1, 10-16, 18, 27-33, 35, and 44-50 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,848,715 to Nelson et al. (hereinafter "Nelson"). The Examiner rejected claims 1-3, 8, 16, 18-20, 25, and 33 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,543,801 to Lebaudy et al. (hereinafter "Lebaudy") and claims 1, 10, 18, 27, 35, and 44 as being anticipated by U.S. Patent No. 5,630,621 to Schneider et al. (hereinafter "Schneider"). The Examiner also rejected claims 35-37, 42, and 50 under 35 U.S.C. § 103(a) as being unpatentable over Lebaudy in view of Schneider and claims 2-5, 7, 8, 17, 19-22, 24, 25, 34, 36-39, 41, 42, and 51 as being unpatentable over Nelson in view of U.S. Patent No. 6,854,759 to Schwark et al. (hereinafter "Schwark"). Additionally, claims 2-34 and 38-51 were rejected as being unpatentable over various combinations of Lebaudy, Schneider, Schwark, Nelson, U.S. Patent No. 6,749,219 to Edwards, II et al. (hereinafter "Edwards"), and U.S. Patent No. 6,676,147 to Ozaki et al. (hereinafter "Ozaki").

By this paper, claims 1, 3, 8, 18, 20, 25, 35, 37, and 42 have been amended and claims 2, 10-15, 19, 27-32, 36, and 44-49 have been canceled. New claims 52-60 have been added. Support for claims 52-60 may be found on page 5, lines 3-11, page 12, lines 12-13, and Figures 2-6. In view of these amendments and the following remarks, immediate allowance of claims 1, 3-9, 16-18, 20-26, 33-35, 37-43, and 50-60 is respectfully requested.

Specification

The specification has been amended to correct numbering inconsistencies found in the last paragraph on page 17. Withdrawal of this objection is respectfully requested.

Rejection of claims 1, 10-16, 18, 27-33, 35, and 44-50 under 35 U.S.C. §102(e) by Nelson

In the Office Action, the Examiner objected to the specification and rejected claims 1, 10-16, 18, 27-33, 35, and 44-50 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,848,715 to Nelson. However, a "claim is anticipated only if each and every element as set

forth in the claim is found, either expressly or inherently described, in a single prior art reference.” M.P.E.P. § 2131 (*quoting Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)). “The identical invention must be shown in as complete detail as is contained in the . . . claim.” *Id.* (*quoting Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)). In addition, “the reference must be enabling and describe the applicant’s claimed invention sufficiently to have placed it in possession of a person of ordinary skill in the field of the invention.” *In re Paulsen*, 30 F.3d 1475, 1479, 31 USPQ2d 1671, 1673 (Fed. Cir. 1994).

In this case, claims 1, 18, and 35 have been amended to provide “an adapter unit integrally formed as one piece with the back panel.” By integrally forming the adapter unit with the back panel as one piece, the airbag may be manufactured at a lower cost, in a shorter period of time, and with fewer parts. Furthermore, the claimed invention permits an inflator may be more securely and directly attached to an airbag having fewer seams through which inflation gas may leak.

Claims 10-16, 27-33, and 44-50 depend respectively from claims 1, 18, and 35 and thus, also include this claim element.

In contrast, Nelson does not disclose an adapter unit integrally formed as one piece with the back panel. Instead, Nelson discloses a folded rigid knee airbag 112 that includes a multitude of parts and does not provide the advantages of the claimed invention. Consequently, Nelson does not disclose each and every element of amended claims 1, 10-16, 18, 27-33, 35, and 44-50. Therefore, Nelson does not anticipate amended claims 1, 10-16, 18, 27-33, 35, and 44-50. Thus, withdrawal of this rejection is respectfully requested.

Rejection of claims 1-3, 8, 16, 18-20, 25, and 33 under 35 U.S.C. §102(e) by Lebaudy

The Examiner rejected claims 1-3, 8, 16, 18-20, 25, and 33 under 35 U.S.C. § 102(e) as being anticipated by Lebaudy. As noted above, claims 1-3, 8, 16, 18-20, 25, and 33 have been amended to recite the claim element, “an adapter unit integrally formed as one piece with the back panel.”

In contrast, Lebaudy does not disclose this claim element. Instead, Lebaudy discloses a safety device 1 having “the lower element 7 and the circular plate 10 ... fixed together by welding.” Lebaudy, col. 3, lines 49-50. A first metal sheet 20 (“back panel”) is then “fixed by threaded fasteners into the circular plate 10 using bolts 23. Thus, the lower element 7 is not integrally formed as one piece with the circular plate 10 and the circular plate is not integrally formed as one piece with the first metal sheet 20.

Referring to the Examiner’s assertion that “integral” is “to be defined to embrace constructions united by such means as fastening and welding,” Applicants respectfully assert that “integrally formed as one piece” may not be reasonably defined to include fastening and welding. Office Action, page 3, item 4.

Consequently, Lebaudy does not disclose an adapter unit integrally formed as one piece with the back panel. Therefore, Lebaudy does not anticipate claims 1-3, 8, 16, 18-20, 25, and 33. Thus, withdrawal of this rejection is respectfully requested.

Rejection of claims 1, 10, 18, 27, 35, and 44 under 35 U.S.C. §102(b) by Schneider

The Examiner rejected claims 1, 10, 18, 27, 35, and 44 under 35 U.S.C. § 102(e) as being anticipated by Schneider. As discussed above, claims 1, 10, 18, 27, 35, and 44 have been amended to recite the claim element, “an adapter unit integrally formed as one piece with the back panel.”

In contrast, Schneider does not disclose this claim element. Instead, Schneider discloses a plate 14 and a retainer 20 for securing the inflator 10 to the knee bag cushion 30, none of which is integrally formed together as one piece. Consequently, Schneider does not disclose an adapter unit integrally formed as one piece with the back panel. Therefore, Schneider does not anticipate claims 1, 10, 18, 27, 35, and 44. Thus, withdrawal of this rejection is respectfully requested.

Rejection of claims 35-37, 42, and 50 under 35 U.S.C. §103(a) by Lebaudy & Schneider

The Examiner also rejected claims 35-37, 42, and 50 under 35 U.S.C. § 103(a) as being unpatentable over Lebaudy in view of Schneider. MPEP §2143 provides that a *prima facie* case of obviousness is established only if the Examiner shows that (1) there is some teaching,

suggestion, or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference; (2) there is a reasonable expectation of success; and (3) the prior art teaches or suggests all of the claim elements.

Claims 35-37, 42, and 50 have been amended to recite the claim element, "an adapter unit integrally formed as one piece with the back panel." As discussed above, Lebaudy and Schneider, singly or in combination, teach or suggest an adapter unit integrally formed as one piece with the back panel. Consequently, Lebaudy in view of Schneider does not teach or suggest all of the elements of claims 35-37, 42, and 50. Therefore, claims 35-37, 42, and 50 are not obvious over Lebaudy in view of Schneider. Thus, withdrawal of this rejection is respectfully requested.

Additionally, claim 37 recites "an impression formed in the back panel." Applicants respectfully assert that the back panels of Lebaudy and Schneider do not include impression. Therefore, Lebaudy and Schneider also do not teach or suggest this claim element.

Rejection of claims 2-5, 7, 8, 17, 19-22, 24, 25, 34, 36-39, 41, 42, and 51 under 35 U.S.C. §103(a) by Nelson & Schwark

In the Office Action, claims 2-5, 7, 8, 17, 19-22, 24, 25, 34, 36-39, 41, 42, and 51 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Nelson in view of Schwark. By this paper, claims 2-5, 7, 8, 17, 19-22, 24, 25, 34, 36-39, 41, 42, and 51 have been amended to recite "a back panel ... attached to the front panel to form an inflatable chamber for receiving inflation fluid ... [and] an adapter unit integrally formed as one piece with the back panel."

As discussed above, Nelson does not teach or suggest a back panel that is integrally formed as one piece with an adapter unit. Similarly, Schwark does not disclose a back panel integrally formed as one piece with an adapter unit and attached to a front panel to form an inflatable chamber for receiving inflation fluid. Instead, Schwark teaches "a reaction plate 60 for securing the knee bag module to structure of the vehicle 14." Schwark, col. 3, lines 41-43. "The inflatable knee bag 20 is stored within the cavity 86 of the trough 80 of the reaction plate 60." Schwark, col. 5, lines 41-42. In other words, the reaction plate 60 is not attached to a front panel to form an inflatable chamber for receiving inflation fluid. The reaction plate is merely part of a

housing for storing and attaching an airbag to a vehicle. Consequently, Schwark does not disclose a back panel integrally formed as one piece with an adapter unit and attached to a front panel to form an inflatable chamber for receiving inflation fluid.

Therefore, neither Nelson nor Schwark, singly or in combination, teach or suggest a back panel integrally formed as one piece with an adapter unit and attached to a front panel to form an inflatable chamber for receiving inflation fluid. Thus, Nelson in view of Schwark does not teach or suggest all of the elements of claims 2-5, 7, 8, 17, 19-22, 24, 25, 34, 36-39, 41, 42, and 51. Therefore, claims 2-5, 7, 8, 17, 19-22, 24, 25, 34, 36-39, 41, 42, and 51 are not obvious over Nelson in view of Schwark. Thus, withdrawal of this rejection is respectfully requested.

Additionally, claim 3, 20, and 37 recites "an impression formed in the back panel." Applicants respectfully assert that the back panels of the airbags of Nelson and Schwark do not include impression. Therefore, Nelson and Schwark also do not teach or suggest this claim element.

The remaining rejections of claims 2-34 and 38-51 under 35 U.S.C. §103(a) by Lebaudy, Schneider, Schwark, Nelson, Edwards, and Ozaki

In the Office Action, claims 2-34 and 38-51 were rejected under 35 U.S.C. § 103(a) as being unpatentable over various combinations of Lebaudy, Schneider, Schwark, Nelson, Edwards, and Ozaki. As discussed above, claims 2-34 and 38-51 have been amended to recite "a back panel ... attached to the front panel to form an inflatable chamber for receiving inflation fluid ... [and] an adapter unit integrally formed as one piece with the back panel." Furthermore, Nelson, Lebaudy, Schneider, and Schwark do not teach or suggest this claim element.

Similarly, Edwards and Ozaki do not teach or suggest a back panel attached to the front panel to form an inflatable chamber for receiving inflation fluid and integrally formed as one piece with an adapter unit. Instead, Edwards is directed to an inflator and not an airbag and Ozaki is directed to "an airbag device ... made up of a casing 12 arranged at a rearward position of an upside portion 2 of the instrument panel 1 and opening upwardly, an airbag 14 housed in the casing 12 in a folded state, an inflator 16 of a generally columnar form, which is a gas generator, a diffuser 18 for controlling the flow of gas generated from the inflator 16, which is a

cylindrical member, and a door 20 covering the upside opening of the casing 12.” Ozaki, col. 6, lines 20-34.

Therefore, Lebaudy, Schneider, Schwark, Nelson, Edwards, and Ozaki, singly or in combination, do not teach or suggest a back panel integrally formed as one piece with an adapter unit and attached to a front panel to form an inflatable chamber for receiving inflation fluid. Thus, Lebaudy, Schneider, Schwark, Nelson, Edwards, and Ozaki do not teach or suggest all of the elements of claims 2-34 and 38-51. Therefore, claims 2-34 and 38-51 are not obvious over the various combinations of Lebaudy, Schneider, Schwark, Nelson, Edwards, and Ozaki. Thus, withdrawal of this rejection is respectfully requested.

In reference to the rejections discussed in items 9, 10, and 11, the Examiner noted that Lebaudy and Schneider do not disclose an orifice where the diameter is larger than the diameter of the inflator. Consequently, the Examiner on page 6, 7, and 8 of the Office Action asserted that Schwark teaches “an orifice 86 where the diameter is larger than the diameter of the inflator.” However, numeral 86 of Schwark is a cavity in the reaction plate 60 and not an orifice. The Examiner noted that Lebaudy does not disclose an orifice where the diameter is larger than the diameter of the inflator. Therefore, Lebaudy, Schneider, and Schwark also do not teach or suggest this claim element.

Furthermore, the Examiner noted that Lebaudy and Schneider do not disclose a sealing wedge. The Examiner on pages 6, 7, and 8 of the Office Action also asserted that column 4, lines 30-33 of Schwark teaches “a sealing wedge disposed between the fill valve 114 of the inflator and the first end portion.” However, that section of Schwark merely states that “The fill valve 114 is sealed after the inflator 18 is filled to prevent leakage of the gas out of the inflator housing 110 through the fill valve 114.” Applicants respectfully assert that nowhere in Schwark is a sealing wedge disclosed. The Examiner also noted that Lebaudy does not disclose a sealing wedge. Therefore, Lebaudy, Schneider, and Schwark also do not teach or suggest this claim element.

In reference to the rejection of items 14, 15, 16, and 17 of the Office Action, the Examiner asserted that column 1, lines 60-62 of Edwards teaches that “the first end portion has a smaller diameter and that the adapter unit is attached securely to it through a press fit.”

However, upon closer reading of Edwards, column 1, lines 60-62 of Edwards is teaching that “When press fitted and then laser welded together, the walls 15 and 17 form a structural girth that contributes to the overall strength of the housing 12 [of the inflator 10].” Therefore, Edwards does not disclose that the adapter unit is securely attached to the diffuser portion of the inflator through a press fit as recited in claims 6, 23, and 40.

In reference to items 18, 19, 20, and 21, the Examiner asserted that Ozaki discloses “the lip portion 64 encompassing the orifice and configured to secure the diffuser portion of the inflator during discharge.” However, upon closer study of Ozaki, numeral 64 labels a gas restraining wall 64 that is used “suppress deformation of the terminal portion of the diffuser 18... [to permit] protection of the marginal opening portion 56 of the airbag 14 ... from the heat of the gas blown out from the gas blowoff part 28 ... [and] to change the flowing direction of gas G.” However, the gas restraining wall 64 does not secure the diffuser portion of the inflator during discharge. Consequently, Ozaki does not teach or suggest “a lip portion encompassing the orifice, the lip portion being configured to prevent the diffuser portion of the inflator from becoming separated from the adapter unit during discharge of the inflator” as recited by claim 9, 26, and 43.


In view of the arguments presented above, Applicants respectfully request that the various rejections of claims 2-34 and 38-51 under 35 U.S.C. §103(a) by various combinations of Lebaudy, Schneider, Schwark, Nelson, Edwards, and Ozaki be withdrawn.

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Conclusion

Applicant respectfully requests that a timely Notice of Allowance be issued in this case. If there are any remaining issues preventing allowance of the pending claims that may be clarified by telephone, the Examiner is requested to call the undersigned.

Respectfully submitted,



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